



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1/1

Application No. : 10/526,308 Confirmation No. 3846
Applicant(s) : Markus OHNMACHT et al.
Filed : March 2, 2005
TC/A.U. : 3752
Examiner : Trevor McGraw
Docket No. : R.304253
Customer No. : 02119

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: July 20, 2007

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(c),
AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART**

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file.

This citation of prior art is made under 37 CFR 1.97(c), since it is being filed prior to any Final Action, and is being accompanied by the fee of \$180 as set forth in 37 CFR 1.17(p).

The relevance of the prior art cited on the attached form PTO/SB/08a is as follows:

US 6,427,932 B1

The invention relates to a fuel injection nozzle for an internal combustion engine, especially of a common-rail injection system. The injection nozzle contains a nozzle needle which is coupled to an actuating element that serves to control a nozzle opening process. The nozzle needle comprises a needle point and a valve seat which interacts with the same. The valve seat has a conical sealing surface with an opening angle α_1 , and the needle point has a conical sealing surface with an opening angle α_2 . The opening angle α_2 of the sealing surface of the needle point is smaller than the opening angle α_1 sealing surface of valve seat. An

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expansion, said expansion serving as a cavitation chamber, of a ring-shaped flow channel, is configured between the needle point and the needle housing in the direction of flow of the fuel following the sealing surfaces of the needle point and valve seat. The cavitation chamber is configured and dimensioned to achieve a targeted cavitation results.

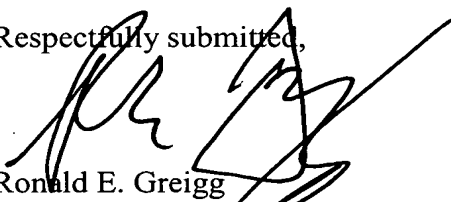
JP 2001-12334

This invention shows a peripheral groove (4) is formed in the inner wall surface (3) of a nozzle body, and a nozzle hole entrance (5) is arranged in relation to the peripheral groove (4) so that the nozzle body rear end side part (6) relative to the nozzle hole entrance is overlapped with the nozzle body tip side part (8) of the peripheral groove, the nozzle body tip side part (7) relative to the nozzle hole entrance 5 is not overlapped with the peripheral groove(4), and the nozzle body rear end side part (9) relative to the peripheral groove is not overlapped with the nozzle hole entrance (5).

The Commissioner is hereby authorized to charge payment of the fee of \$180, or any/all fees associated with this communication to Deposit Account 07-2100.

Examination of this application is respectfully requested.

Respectfully submitted,


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REG/qmh
Enclosures
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(Use as many sheets as necessary)

Sheet	1	of	1
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Application Number	10/526,308
Filing Date	March 2, 2005
First Named Inventor	Markus OHNMACHT et al.
Art Unit	3752
Examiner Name	Trevor McGraw
Attorney Docket Number	R.304253

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Date	
Cons	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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